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ORIGINAL DEPARTMENT.

Communications.

ANATOMY

IN ITS RELATIONS TO

MEDICINE AND SURGERY.

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No. 15.

NASAL REGION, (*continued*).—*Internal Nasal Region.*—This portion of the organ is sometimes termed the nasal cavities, sometimes the nasal fossæ. These passages communicate with other air chambers, and with the lachrymal apparatus, which are lodged within the bones of the cranium or face, and which shall be described in their proper order. The nasal cavities communicate with the face in front by the anterior nares, and with the pharynx behind by the posterior nares.

Nasal Floor.—This consists of symmetrical parts, which are formed by horizontal plates, springing from the superior maxillary and palate bones. They unite in the median line to form the palatine suture, the surfaces for union being merely roughened, not serrated to any depth. The oral surface of the seam is smooth, the nasal is elevated into a crest, in which the septum rests. From side to side the floor is slightly concave, and, in the ordinary erect position of the head, has a gentle inclination backward. Though the length of the floor varies in different individuals, yet that difference is by no means so great as might be supposed. From different measurements which I have made, the average length of the bony floor will be one inch and 10-12ths. With the addition of the soft parts, it will be two inches and a half.

Nasal Roof.—This is formed by the nasal bones, cribriform plate of the ethmoid, and body of the sphenoid bone. The angle at which the nasal bones are connected with the frontal will make the roof slope in two ways: from the anterior part of the ethmoid downward and forward to the anterior nares, and in the opposite direction, downward and backward to the posterior nares. From the cribriform plate of the ethmoid to the floor is the greatest height, and will average, in the adult, two inches, diminishing gradually to the posterior nares, where it is only one inch and a sixth in its vertical diameter. These measurements apply to the skeleton, deprived of the soft parts; for the addition of these we must subtract a fourth.

Fig. 20.

Exhibits a vertical section of the nasal fossa, on one side of the septum, and through the palatine suture into the mouth. The septum is seen, and the different parts of which it is composed: the vomer below, the perpendicular plate of the ethmoid above, planted against the nasal bones, and extending into a process, the "crista galli," in front of which are the frontal cells. Between the perpendicular plate and the vomer in front is the cartilaginous part of the septum; and behind, the sphenoidal cells.

Septum Narium.—This consists of three parts: the anterior, a plate of *cartilage;* the inferior and posterior, the *vomer;* and the superior, the *perpendicular plate* of the ethmoid bone. Below, the septum rests within the crest, which projects on the nasal surface of the hard palate. It is rarely perfectly perpendicular, generally deviating to one side of the median line. It supports above, in part, the nasal bones, and is continued up into the cranium, as the *crista galli* to which the falx major is attached in front.

External Walls.—These are very irregular, and are bounded by the upper maxillary, lachrymal, turbinated and perpendicular plates of the palate bones. From the outer side of each nasal fossa there project three little bones, curved on themselves, the *turbinated bones.* They are extremely delicate and fragile in their structure; they are situated one above the other, and divide the fossæ into three longitudinal spaces, called meatuses, and which are distinguished from each other by the prefix *superior, middle* and *inferior,* all of which open into the posterior nares. The lower turbinated bones advance nearest the anterior nares, the middle next, and the superior last. Into these niches several collateral passages open, which will be explained in their proper order. The perpendicular plates of the palate bones, forming the outer sides of the posterior nares, advance a little more toward the septum than the rest of the outer wall, producing a ridge, which should not be overlooked, as it forms a valuable guide in reaching the Eustachian tube. The transverse diameters of the nasal fossæ diminish rapidly from the floor to the roof, until, near the latter, it is but a narrow slit.

Posterior Nares.—These openings are the posterior termination of the nasal fossæ. They present toward the pharynx, and are separated from each other by the vomer. When covered by their soft parts they will measure one inch in their perpendicular, and a full half inch in their transverse diameters. Just within the nares the fossæ widen considerably.

Covering all these parts is a mucous membrane, often called the Schneiderian or pituitary membrane. It is a very dense structure firmly connected to the periosteum of the bones upon which it rests, by a scanty bond of fibrous tissue. This is particularly the case over the turbinated bones and the septum.

It presents very well marked differences in different portions of the fossæ. On the upper part of the septum and the superior and middle turbinated bones, it is of a yellow color, very thick, and presents almost a fleshy appearance, and is covered with a cylinder epithelia. This portion is also well supplied with tubular glands, "*glands of Bowman,*" the cavities of which are lined by cells containing pigmentary matter, on the presence of which depends the color of the membrane. This part of the nasal fossæ is the true olfactory portion of the organ, the part supplied by the olfactory nerves. The lower part of the nasal cavities, which includes the inferior half of the septum, floor, and inferior turbinated bones, differs from the other in the following particulars: its color is not so dark; in some animals, the horse for example, it is quite red; it possesses a cilliated epithelium; is comparatively, if not altogether, destitute of the forementioned glands, and has no nerves of smell.

Blood Vessels.—The interior of the cavities under consideration are very abundantly furnished with vessels from the *facial* artery, which enter through the cartilagenous nose and foramina in the nasal bones, from the ophthalmic, and more particularly from the internal maxillary, by its spheno-palatine trunks.

Veins.—These empty into the *facial* and *ophthalmic.* They communicate frequently with the superior longitudinal sinus through the foramen cœcum, and through the openings in the cribriform plate of the ethmoid bones, with the intracranial veins. The commencement of these vessels, especially over the turbinated bones, is in the form of a looped plexus, resembling closely the tissue of the cavernous or spongy body of the penis, and causing in a great degree the thickness of the membrane at these points.

Nerves.—The olfactory nerves which endow the organ with the sense of smell, descend through the cribriform plate, from the olfactory bulbs resting thereon; each one is supported by a sheath derived from the dura

mater, and in their distribution are confined to the upper and non-cilliated portion of the organ.

Spheno-palatine branches enter the cavities from the ganglias of Meckel, and trunks of common sensibility form the *5th pair*, the most prominent of which are the internal nasal branches.

Practical Observations.—The floor of the nasal cavities is sometimes incomplete as a congenital defect; the palatine suture failing to close from arrest of development. It is frequently perforated by scrofulous and syphilitic ulceration. In both cases trouble ensues in swallowing liquids, and the articulation of words requiring a mechanical appliance to close the deficiency. In the removal of the superior maxillary, the separation of this palatine suture is necessary to the neat disarticulation of the bone.

The slight inclination of the nasal floor backward, conducts the secretions, when sufficiently liquid, to the pharynx rather than to the face. As these cavities extend between the face and the pharynx, the surgeon is enabled to convey instruments into the latter by this route. The nearer the floor, the greater the capacity of the cavity, and its average length will be of some value aside from other means of enabling him to determine when his instrument has passed through. These passages are the natural air channels, and when obstructed or closed, a marked impression is made on the system as manifested in those signs which imply imperfect oxygenation of the blood, such as a livid hue of the face, sighing, stupor, and muscular debility. Any one who has suffered from a severe cattarrhal attack of these passages, will recollect the inconvenience and distress which have followed the necessity of breathing with the mouth open.

Children particularly, rapidly succumb when the nose becomes closed, which is very common in those affections of the mucous membrane attended with profuse secretion, such as occur in aggravated forms of scarlatina; hence the necessity of carefully removing these collections, and admitting a free ingress of atmospheric air.

The extreme delicacy of the middle part of the nasal roof, formed by the perforated ethmoid plate, should not be overlooked, as it, with the membranes above and the mucous membrane below, is all that separates the cavity of the nose from the brain; and where pointed instruments are employed carlessly in any operations within these passages, they might readily pass through and wound the anterior lobes of the cerebrum. It is said that persons from criminal intent have practised such punctures with delicate needles, the situation being one likely to escape observation.

Remarks on the Digestive Principle.

By J. Creston Morris, M. D.

(Communicated to the Biological Department of the Academy of Natural Sciences, Oct. 17th, 1859.)

In the course of some observations offered to the department at the session of June 7th, 1858, on the subject of endosmose, I suggested the hypothesis that during digestion a watery fluid was secreted from the gastric mucous membrane, containing a principle which was capable of spitting or undergoing a fermentive change, so as to produce lactic acid and so-called pepsin. I now have the pleasure of laying before the department the facts necessary to substantiate that hypothesis.

When a very dilute solution of ov-albumen is exposed to the air at a moderate temperature for several days, it becomes cloudy, and has a slightly acid reaction. This change is hastened if air is forced through the solution from time to time. If a small portion of this be added to fresh milk, it will cause coagulation of the latter in a short time; boiling the solution previously diminishes this property. When a thin portion of coagulated albumen is placed in the solution at a warm temperature, it is dissolved in the course of a few hours; if the solution be previously boiled, no such change occurs. When the solution is distilled, the distillate yields a white curdy precipitate with nitrate of silver, soluble in an excess of ammonia.

The above facts correspond so closely, as far as they go, with the properties of the gastric juice, that I have no hesitation in stating my belief that they afford the explanation of the mode of formation of the latter. We have, in effect, an albuminous fluid in the stomach,

placed under appropriate circumstances as regards oxygen and temperature for the occurrence of fermentative changes; and if, by imitating these conditions out of the body, we produce analogous results, we have the strongest reasons for believing that the causes and mode of operation are the same in the living body.

The foregoing experiments offer also a satisfactory solution of the apparently discrepant views held by different investigators, as to the digestion of azotised food. It becomes no longer difficult to comprehend that the gastric juice, the pancreatic fluid, and the intestinal secretion, as well as decomposing albuminoid matters, may all possess the power of causing a solution of coagulated albumen, &c, inasmuch as a splitting of an element common to them all, viz. albumen, gives rise to an acid, (probably lactic,) and a digestive principle. I regret that I have not been able to make an ultimate analysis of the substance obtained by evaporating the solution above mentioned to dryness, at a low temperature.

These experiments also set at rest the mooted question of the free acid of the gastric juice, proving that the lactic acid developed during the fermentation of albumen is capable of decomposing, during distillation, the alkaline chlorides found in the white of the egg.

I should state, however, that I do not regard the above facts as finally conclusive on the subject. More experiments are required to demonstrate the identity of the principle obtained with pepsin.

New York Ophthalmic School.

Outlines of Introductory Remarks at the opening of the Eighth Session, Oct., 22d 1859, by Mark Stephenson, M. D.

A highly respectable number of medical students and physicians assembled at the New York Ophthalmic Hospital, on the evening of the 22d inst., to hear the introductory of Dr. M. Stephenson to a course of lectures on diseases of the eye.

The doctor commenced by welcoming the students to the New York Ophthalmic School. He next spoke of the numerous charities in this city, of which New York may be justly proud; the youngest of these is the New York Ophthalmic Hospital. Though young in years and humble in architectural appearance, her pupils are to be found in nearly every state of the Union.

His subject was "*The pains, pleasures and responsibilities incident to professional life; specialties, etc.*" He warned those just initiated into the study of their profession, against the folly of entering its ranks from mercenary views, that it was seldom that the members of our profession acquire wealth; yet, with prudence, they might realize a competence sufficient for the necessary wants of life. He spoke of the sacrifices they would have to make, not only in the days of their pupilage, but also after they had attained to all the honors their alma mater could confer upon them. They must not think of indulging in pleasure, indolence or dissipation, remarking that the precept holds good in medicine as in religion—"Ye cannot serve two masters;" and he that would make proficiency in either must be often found in his study or closet.

In the exercise of their profession, they would often require the spirit of the hero and the martyr to sustain them. *Ingratitude and misrepresentation* would frequently arise from sources where they least expected it; but in cases like these he exhorted them to imitate the example of the immortal Boerhaave, who, feeling conscious of the rectitude of his course, refused to take any notice of slander and abuse—"They are sparks," says he, "which will go out of themselves if you do not blow them." The surest remedy against scandal is to live it down by perseverance in well doing, and praying to God that He would cure the distempered minds of those who traduce and injure us.

Still another, and not the least source of disquietude, would be the little, petty rivalries and jealousies in the profession; but he rejoiced to say, that a better feeling now existed than formerly, and that this fraternal regard had been on the increase ever since the organization of the American Medical Association.

He then observed: "You will naturally inquire what are the inducements to follow a a profession, where nothing is to be gained from it but a few of its fleeting honors? Are there no redeeming features—no bright spots

to relieve the deep shades of the picture? My answer is—there are many. Is there nothing in the luxury of doing good—in the consciousness of having performed a generous and noble act? Yes, gentlemen, there will be occasions when you will receive the highest gratification the human heart is capable of enjoying, in return for your anxieties, solicitude and care. What can afford more thrilling delight than the restoration of a beloved mother to the bosom of her family, of a husband to the embraces of his companion, of an indulgent father to his children, the recovery of an only child from a protracted illness, the restoration of sight to the blind and hearing to the deaf?—emulating the Great Physician himself, who went about doing good, healing the sick, and opening the eyes of the blind."

He next dwelt at some length upon the luxury of a well disciplined mind in the acquisition of knowledge. After all, said he, what can compare with the pleasures of the human intellect. All others are of a sordid, and evanescent character.

On the subject of *specialties*, he observed that no man was competent to practice any one branch of his profession unless he was thoroughly educated in all its departments. That those who qualify themselves to treat only a single disease or class of diseases have done little or nothing for our science—and what is still more, must and ever will be ranked as charlatans, by the well educated physician. How would the mere specialist understand the multifarious and often perplexing phases which diseases sometimes assume. He advised the medical students to qualify themselves to practice all branches of their profession, but to endeavor to excel in some one department. He then congratulated the young gentlemen that the day had already arrived when it was no longer necessary for them to visit Vienna, Paris, or any other European city for the purpose of studying specialties.

He next spoke of that cherished object of his regard, the human eye—observing, that there was no other organ in the whole mechanism of man that was more deserving of our care, or that more completely challenged our admiration—surely in no other structure do we discover more of the wisdom, power, and benevolence of the Supreme Being. Dr. Clay, one of our former pupils in the New York Ophthalmic School, in his valadictory address to his associates, in reference to the human eye, very beautifully remarked: "If every particle of created matter were annihilated with the exception of *one human eye*, with its minute, delicate, and beautiful structure floating alone in the vast immensity of space, it would proclaim in language that could not be controverted—there is an *Omnipotent God*."

But there is another aspect in which we should look at the eye, referring to its diseases. From the diversity of its structure, and the extreme delicacy of its organization, it is subject to a greater variety of diseases than almost any other organ of the body. And there are none which require a more careful diagnosis or more prompt and decisive treatment. An error here is the more to be deplored because it is usually an irretrievable one.

Maltreatment in a case of corneitis or iritis, purulent, or gonorrhœal ophthalmia, if continued but for a single day, may result in ulceration, rupture, or opacity of the cornea; in prolapsus iridis, synechia, or in a closure of the pupil, staphyloma or sloughing of the tunics of the eye. Woe! woe! to the man that shall thus blunder. He envied not the feelings of him who through negligence or ignorance should commit so egregious an error, nor should he be pitied were he to suffer the severest penalties of the law.

Gentlemen, said he, there is no necessity for such mistakes, and he who will qualify himself to practice his profession as he ought, need never be guilty of them. He invited them to avail themselves of the present opportunity of spending an hour each week in listening to a lecture on the eye, its diseases, and their treatment; also to attend the clinics and witness operations as performed by himself and his worthy colleague at this institution. In conclusion, he announced that he should operate for cataract in a few days, and invited the students to attend.

Illustrations of Hospital Practice.

PENNSYLVANIA HOSPITAL.

OCTOBER 15TH.

Service of Dr. J. Forsyth Meigs.

(Reported by Mr. J. B. Hayes.)

Jaundice.—This patient exhibited a week ago deeply jaundiced, was to-day shown better in every respect. Dr. M. looked upon the case as one of bilious remittent fever, and the jaundice as dependent on congestion of the liver.

The patient had been put at first upon blue pill and rhubarb, then, on account of diarrhœa, opium was substituted for the rhubarb, and afterward the blue pill continued alone. He had had a distressing hiccough for the greater part of eight or ten days; this had now nearly disappeared. His bowels had been torpid. Ten grains of sulphate of magnesia, with two drops of laudanum, were given every two hours, until the bowels were evacuated freely. Day before yesterday his stools, which had been grayish white and destitute of bile, became dark brown and feculent. The blue pill was stopped yesterday, and he now takes only a tablespoonful of whiskey every four hours, for the reason that he is a spirit-drinker, and it was thought that the singultus might be kept up, in part at least, by nervous prostration due to the abstinence from his accustomed stimulus. Hoffman's anodyne was given as an antispasmodic, and he was allowed wine whey, chicken soup, and arrow-root gruel, made with milk.

He is now convalescing decidedly.

Hemiplegia.—This patient had greatly improved. He has had no treatment but a simple low diet, as there was no indication for the use of drugs. He now controls the alvine and urinary discharges perfectly, and was recovering the lost sensibility of his right arm and leg.

Dr. M. experimented, in the presence of the class, upon the paralyzed side of the patient with a pair of compasses, but the patient was naturally deaf and dumb, and the results were not particularly decisive or uniform.

This mode of ascertaining the sensibility of parts originated with Prof. Weber. It consists in touching the cutaneous surface with the legs of a pair of compasses, which are approximated until they are brought within the smallest distance, at which they can be felt to be distinct from one another, which has been termed the "limit of confusion."

The patient now protrudes his tongue perfectly straight, and shuts his right eye well. In hemiplegia the muscles supplied by the portio dura are seldom impaired in function. It is the fifth pair and the hypoglossal which are most invariably affected.

Dr. Hewson had examined the patient's right eye with the ophthalmoscope, and had found merely injection of the retina at the entrance of the optic nerve; this explained the loss of vision of that eye, but gave no information of the state of the brain. Dr. M. stated that there must have been an apoplectic effusion in the neighborhood of the left corpus striatum or optic thalamus. Probably from the entire relaxation of the muscles of the affected side, there may have been white softening prior to the apoplectic attack, but this was uncertain. There was no cardiac disease, nor was there any thickening of the walls of the arteries, so far as could be detected by an examination of the radials and temporals.

Dr. M. here quoted an opinion he had heard, in years back, from Dr. Chapman, which his own experience had verified. In well-marked palsy following apoplexy, if the patient did not, in great measure, recover his power over the side in three or four days, he, probably, never would regain it more than imperfectly. The injury to the cerebral tissue, has been, in such cases so great, that nature is incompetent to restore the parts to their former condition, and the patient remains more or less lamed for the remainder of his days.

Paralysis of the Portio Dura.—This is an interesting case of facial paralysis, unlike the preceding case, independent of disease of the brain. The patient is a seaman, forty years of age. He says that three months ago, at sea, while walking from the larboard to the starboard side of his vessel, he felt, to use his own words, as if some atmospheric influence had struck him in the left eye; he was seized with pain, and in two or three days his face was drawn strongly to the right. His mouth, he says, was drawn almost to his ear, and he was unable to close the lids of his left eye. He had paralysis of the *portio dura*, which supplies the muscles of expression—an affection sometimes called histrionic paralysis. He now closes his right eye perfectly, and corrugates strongly the right corrugator supercilii, and the right occipito-frontalis muscles; while on the left side of the face, these muscles act very imperfectly, as you may see, from the absence of the folds and wrinkles which you observe on the right side. He can now close, with a strong effort, the eyelids of the left side, by the action of the orbicularis palpebrarum. This he could not do at all, he tells us at first, and only partially when he first entered the house. His control over the orbicularis oris is also imperfect, as he can whistle only on one side of his mouth. When first attacked, such was the loss of power over the muscles of the left cheek, that in masticating, he was forced to push, with his fingers, the alimentary mass between the teeth, else it collected between the cheek and teeth, interfering with the act of eating.

Post Mortem Specimens—Typhoid Fever.—This patient was a German, tailor, 28 years of age; he was admitted on the 10th of October, with the symptoms of typhoid fever. He had been sick more than two weeks, during the last of which he had been confined to bed. At his entrance, he had headache, fever, pulse 110, skin dry and hot, two stools daily, rose-colored spots and bronchitis. The tongue was dry, and the teeth covered with sordes; intelligence dull, with much drowsines. Ordered solution of acetate of ammonia, f.℥ss. every two hours, and a diet of arrow-root gruel made with milk. Did pretty well, with two stools only in 24 hours, until 3 A. M. of the 13th, when he had a discharge from the bowels, and between 5 and 6 A. M., two more; making in all about a quart of thick liquid, of a reddish-black color, consisting chiefly of blood. He was ordered an enema of 45 drops of laudanum, and a wineglassful of wine whey every two hours. At 8 A. M. pulse 110; skin dry. At 11 A. M. pulse 108, not very weak. Tinct. ferr. chlorid., gtt. x. every 2 hours, ordered.

At 5 P. M. pulse 124; face quite blanched; has had no stool since morning. At 5½ P. M. had another bloody discharge, about a pint. The laudanum enema was repeated. At 11½ P. M. another stool not quite so large; pulse 150, weak and fluttering. Stimulants ordered every hour, milk punch instead of wine whey.

Patient slept a great deal during the night; very weak, and very much blanched. At 7½ A. M. of 14th, another bloody stool. Respiration laborious and noisy; pulse 150, feeble and fluttering; face very pale, and lips bloodless; another opiate injection was given. Between this and 11 o'clock two small discharges, containing less blood and some fœcal matter; respiration frequent and oppressed; rattling in throat; much restlessness and tossing; countenance anxious; pulse very feeble and indistinct; head thrown backward, and face and hands almost exsanguine. The tinct. ferri was suspended, and Hope's camphor mixture (nitrous acid, laudanum, and camphor water) given in f.℥ss. doses, every two hours.

The patient now sank gradually, breathing with more difficulty and rapidity, and, after two more small discharges from the bowels, died very easily at five minutes before 2 P. M. Upon the relaxation of the sphincters at the moment of death, quite a large discharge of blood and watery fæces came away from the bowels.

Lungs.—The lower lobe of each was seen to be congested and carnified. Dr. M. was anxious to try the experiment of inflation, to show the class the difference between true pneumonia and the hypostatic pneumonia of this disease, but the texture of the lung was found to have been broken during the autopsy, so as to render it impossible.

The *Kidneys* were congested.

The *Spleen* was enlarged and very much softened. It broke by its own weight when held up by one end, and was in the condition found in almost all cases of typhoid fever.

The *Intestines* at the upper part of the ileo-cœcal valve presented a large ulceration, discolored black; the mucous and submucous coats were gone: this was no doubt the source of the frequent hæmorrhage. Other ulcerations were shown in the neighborhood of the valve. The solitary glands were enlarged but presented no ulcerations.

The *Heart* was of natural size, but pale, and its tissue soft and flabby, so that the finger could be easily pushed through its substance. Such a condition of the heart is the cause of the feebleness of the circulation, and of the petechiæ of typhus and typhoid fevers. This condition of the heart, as ascertained by auscultation and palpation was a valuable sign as to the necessity of stimulus in typhoid fever; it was generally softened in cases like this.

The inflammation and ulceration of Peyer's glands, in this disease, are thought by the German observers, to depend on the deposit in the gland of a certain adventitious matter called the typhus-product. This product is said to consist of an albuminous exudation, and is thrown off by a process of ulceration or sphacelus, thus explaining the various conditions in which the glands are found. The ulcerations are thought to begin usually somewhere between the 9th and 14th day, and, in favorable cases, the process of cicatrization is accomplished generally in from four to six weeks.

JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

Oct. 22.

Clinic of Dr Gross.

Lateral Operation for Stone.—The patient, a man 28 years of age, was brought before the class on the preceding clinical day. He had recently come from California, and had been for a few days in the College Hospital, in order that his system might be put in proper condition for the operation. On that occasion the existence of a stone in the bladder was ascertained by the introduction of a sound, and some practical observations made upon the use of this instrument. The danger of operating, or even sounding for stone immediately after a journey, was pointed out by Dr. G.

Operation.—After adverting to the several routes by which the bladder might be reached, and the various operations of lithotomy, Dr. G. expressed his decided preference for the perineal division of the bladder by the lateral operation, the excellence of which method, he observed, had been confirmed for ages. Before proceeding to remove the stone, Dr. G. exhibited, by models, the anatomical relation of the parts, and described successively the stages of the operation as performed by himself. The instrument for entering the bladder, which he preferred and had employed in numerous operations, was a narrow probe pointed bistoury: the superficial incisions were made with a scalpel. He knelt upon one knee during the operation, and the tray of instruments was placed for his convenience, upon the floor, at his side.

The patient was brought with some difficulty under the full effect of chloroform; and his limbs held by assistants, without being otherwise confined. The stone was of small size and was extracted without difficulty, and with the loss of very little blood.

Dr. G. mentioned that the man cut for traumatic aneurism, on the last day, was doing well. The wound over the femoral artery was uniting by the first intention; that over the posterior tibial nearly so; that over the seat of the aneurism was suppurating slightly. The patient had been one of Fremont's followers, in his exploring expeditions across the continent, and bore about him evidence of remarkable power of resistance to injuries and wounds.

October 26th.

Operation—Removal of Internal Piles.—These had been for some years a source of discomfort and inconvenience to the patient; defecation was difficult and accompanied with extrusion of the piles, which were easily returned. His general health was good.

Dr. G. remarked, there are two distinct classes of hæmorrhoidal tumors, differing in situation, structure, and treatment. One is situated about the verge of the anus. An extravasation of blood in the cellular substance occurs from rupture of one of the hæmorrhoidal veins. The contents of the tumor—a clot of blood—may be easily turned out: but if allowed to remain, it becomes organized, as in apoplexy, and thus a persistent tumor is formed. It is usually solitary.

The second class is a hypertrophied condition of the vessels of the submucous coat of the rectum. The tumor is covered by a mucous membrane, which ulcerates at times, occasioning a flow of blood, continuous or saltatory, according to the nature of the vessel affected: thus ounces and pints of blood may be lost, establishing a drain upon the system leading to the destruction of the patient. The tumor is scarlet in appearance, consisting of veins and arteries interlaced and interwoven. It is an erectile tumor, to all intents and purposes. They may vary in size from a pea to an egg; there may be one or numerous piles extending around the circumference of the anus. They are apt to come out during defecation. Here they are internal and at the verge of the anus. I propose to tie them. He has been prepared for the operation by rest, diet, and purgatives, otherwise phlebitis might ensue upon the operation. To protrude the tumor he should sit down in a bucket of warm water and bear down, then getting upon his knees, we may seize it with a tenaculum, and ligature it strongly with saddler's silk. It usually comes away in four or five days. To the external tumor this treatment is not applicable. We should there cut into the tumor, turn out its contents, and send the patient about his business.

Operation.—A well waxed ligature was firmly applied to the base of three tumors in succession, drawn out by the vulsellum. The patient was directed to have a light diet, and an anodyne. The bowels were to be kept locked for three days. Locally Dr. G. usually applied nothing.

Coxalgia.—The patient was a child, three years of age, and the disease had progressed to a considerable extent. All the prominent symptoms were present. The left buttock had lost its rotundity, and in appearance was wider than that of the sound side; the ileo-femoral fold was obliterated. He was unable to stand upon the limb, which was rigidly semi-flexed and atrophied. This disease was always of a strumous character, and most common in children under five years of age. It began, most probably, in the synovial membrane, spreading until it involved all the rest of the structures, and the head and neck of the bone were destroyed. The pain in the knee was probably produced by reflex nervous action. It was the pathognomonic symptom in the early stage of the disease, when, if the proper treatment were used, a perfect cure could be effected.

In the *treatment* of coxalgia, the views of Dr. G. of the necessity and value of rest and counter-irritation have been previously given. An issue was made in this case by the cautery iron, of which he remarked, I take great pleasure in applying the hot iron in cases of this character; it creates the best issue which it is possible to make.

Vesical Calculus—Bilateral Operation.—By the courtesy of Dr. Gross, Dr. Pancoast introduced a patient upon whom he proposed to operate for stone. The patient was a lad 19 years of age, of delicate health. Dr. P. was confident of the existence of one stone, by measurement with the lithotrite fur-

eighths of an inch in diameter. He strongly suspected the presence of a second calculus.

He had hesitated whether to perform the lateral or the bilateral operation. In children he always used the knife, although in France the lithotome was commonly used; but in adults, especially when the stone is large, he thought the lithotome of Dupuytren—really that of Celsus—possessed a decided advantage. There was one advantage in the French method of cutting from within outward: the really resisting part was the first encountered, not the prostate itself, but the neck of the bladder where it joins the prostate.

As the lateral operation had been performed on the last day, by his colleague Dr. Gross, he would, for the sake of variety, use the double lithotome caché. Before proceeding to operate, he explained the method which he proposed to use. The first object was to open the membranous portion of the urethra behind the bulbous portion; next to introduce the lithotome; and lastly, by withdrawing it, to effect the division of the neck of the bladder and the lateral lobes of the prostate gland. All the instruments necessary were the staff, knife, forceps for extracting the stone, and double lithotome.

Operation.—The patient was well etherized, and placed in the same position as for the ordinary lateral operation. A semi-circular incision was made, about three-fourths of an inch in front of the anus, and the urethra entered by the scalpel. The sound was withdrawn after the lithotome was entered along its groove into the bladder; this instrument was then turned so that its concavity presented to the rectum, its blades sprung, and the instrument withdrawn. One stone was removed by the forceps, presenting a facet polished by the attrition of a second stone; this was of large size, but of a soft nature, and in the attempt to remove it crushed under the grasp of the forceps into numerous fragments. These were separately removed by the scoop and forceps, and together made up a stone of very large size.

Medical Societies.

NEW YORK PATHOLOGICAL SOCIETY.

[Prepared for the MEDICAL AND SURGICAL REPORTER from phonographic reports.]

The regular meeting of this Society took place Wednesday, October 26th, DR. ALFRED C. POST, in the chair.

DR. BAUER presented a specimen of *Disease of the Knee-joint*, occurring in a healthy boy, 14 years of age, who was struck with a stone against the shin bone, immediately below the joint; very intense periostitis ensued, which has resulted in the condition of things presented in the specimen. The periosteum is entirely destroyed; there are two perforations in the joint, one of which is exceedingly interesting, namely, perforation through the cartilage over the head of the tibia; the other perforation is situated just behind the condyle of the femur. The usual changes from inflammation and suppuration have taken place in the joint. Amputation was resorted to, as the only means of arresting the disease and preventing a fatal issue, the child having become very rapidly enfeebled.

Disease of the Knee-joint--Leucocythæmia.—The same gentleman presented a specimen, procured from a patient who had died in the Long Island College Hospital. He was brought into the hospital, suffering from the remnants of erysipelas as it appeared; considerable constitutional disturbance was present, and occasionally delirium, which, had he not been a strictly temperate man, might have led to the suspicion of delirium tremens; toxæmia was suspected, and on examination of the urine it was found to contain albumen and casts. Under the treatment that was resorted to the delirium left him, when suddenly the knee-joint commenced to swell, and was found to be filled with matter, for which it was very difficult to find a cause, as there had been no preliminary inflammation of the joint, no pain, and he had never complained of any uneasiness about the parts. The matter was twice removed by means of the trocar. The patient then became very pallid and presented all the appearances of excess of white corpuscles in the blood. The blood was examined, and its leucocythæmic character established. The patient sank rapidly, and died.

On post mortem examination, besides degeneration of the kidneys, no other disease was found, except that of the knee-joint, the cartilages were completely destroyed, and the synovial membrane gone. The case presented great interest, on account of the preponderance of white corpuscles in the blood, which amounted to 50 per cent. He had never heard of a case where there was such a considerable excess of white globules.

[There are several observations of leucocythæmia recorded, in which the per centage of the white, in proportion to the red globules, is stated to have been even larger than in this instance. In one case reported by M. Vidal, the proportion of white corpuscles to the red, in an examination made about a month before the patient's death, was found to be as 3 to 2, or 75 per cent. In this case the leucocythæmia was associated with hypertrophy, and degeneration of the spleen. In these statements, however, it may be well to bear in mind the following remark of Bennett: "Means are altogether wanting to enable us to determine with exactitude the relative proportion of the two kinds of corpuscles in different

cases. In some the colorless corpuscles are only slightly increased beyond their usual number. In one case they are described as five times as numerous as those in health. They are also said in particular instances to be "greatly increased," "one-third as numerous," and "as numerous" as the colored corpuscles. In all these statements there is nothing exact.

However this may be, the best manner of determining the relative proportion of the white and red corpuscles, aside from the tedious process of counting them in the microscopic field, is undoubtedly that employed by Donné, Vogel and others, with slight modifications. It consists in first defibrinating the blood, which is to be examined; then it is poured into a graduated tube, divided into a hundred degrees, or more, if we wish to be very accurate. A separation soon commences to take place, which at the end of forty-eight hours is generally complete, and permits the observer to distinguish three very distinct layers of different height; the uppermost consisting of limpid serum of its ordinary color, the middle greyish yellow, with a slight tinge of green, consisting of the white corpuscles, while the lowermost stratum, with its claret color, represents the red globules. It is necessary, with this procedure, to determine first the exact altitudes of the three layers in healthy blood, after which the morbid specimen can be examined, and the relative increase of the white corpuscles be computed with tolerable accuracy by means of the graduated tube.

Another very interesting question arises in connection with this case. Dr. Bauer states that, with the exception of the renal disease and that of the knee-joint, nothing abnormal was found. This excludes the connection which has been observed to exist between the occurrence of leucocythæmia and a *morbid change of the spleen*, so well marked, indeed, in the majority of instances, that some observers have looked upon leucocythæmia as the result of a special or specific degeneration of the spleen. In the *nine* cases of leucocythæmia, *in extenso* enumerated in Bennett's "clinical lectures," *three* were connected with morbid alteration of the spleen, *one* with cirrhosis of the liver and hypertrophy of the spleen, while in the rest which were associated with cancer in the lungs,(2) tubercles in the liver and kidney,(1) abdominal cancer,(1) and tubercular peritonitis and tubercular lung,(1) the leucocythæmia is mentioned as *slight*, that of the first four cases is characterized as well marked. In four cases of well marked leucocythæmia, recorded by Vidal, Huss of Stockholm, and Mattei,(2) splenic disease was found in each, the spleen, besides degeneration and induration, being hypertrophied, weighing, in one instance, 3¼ pounds, in two instances 3 pounds 2 ounces. Thus, in 13 cases of leucocythæmia, *eight*, in which the excess of white corpuscles was most marked, were connected with splenic alteration, while in the rest connected with cancer and tubercle, it was but slight. We do not presume that splenic disease could have escaped the attention of so acute an observer as Dr. Bauer, had it existed in the above case; yet, with leucocythæmia so well marked, this case forms such an exception to most of the published cases which have come to our notice, that we cannot but regret, that the precise condition in which the spleen was found, and its microscopical characteristics were not particularly described.—REPORTER.]

Dr. B. next presented a cerebellum, containing a hemorrhagic clot, from a woman who had been beaten to death.

Pelvic Abscess.—The next specimen which he presented was the *rectum, womb, bladder and a portion of the small intestines* taken from a woman, who, although she had been sickly for some time, was still able to attend to her ordinary household duties. As she had been suffering from some trouble of the bladder or the womb, the physician who first attended her made out a diagnosis of retroversion of the uterus, and endeavored to restore the base of the organ to its normal position, by the introduction of the finger into the rectum, and gradually pushing the fundus forward and upward.

This, however, was attended by so much pain that he was obliged to desist. Shortly after this the patient was attacked with violent pain in the abdominal and pelvic region. Dr. B. was then called to see her and attended her during her illness, in the course of which peritonitis set in, and an abscess was formed, which burst through the rectum and discharged its contents with the fæces.

The post-mortem examination revealed the abscess to be situated directly in front of the base of the womb, and from the structural changes which had taken place, it was evident that the abcess had been there for sometime. There were firm connections, by plastic material, between the small intestines and the anterior wall of the uterus, and also between the convolutions of the intestinal tract generally.

The same gentleman next presented *parts of the intestines* of a man who had died in consequence of injuries. There was intense peritoneal inflammation throughout, extending to the liver, which was covered with false membrane. The intestines were perforated at two points; the omentum was very much injected.

He then presented a number of admirably well finished wax casts, recently taken by him of interesting surgical and pathological specimens, among which was one of cancer of the cephalic vein of the left arm, and two representing the difference in the stumps respectively, after Syme's and Pirogoff's

amputation of the foot. In his opinion, the stump, after Syme's operation, though shorter than after Pirogoff's, would be better adapted for the adjustment of an artificial foot.

Dr. Bibbins presented two uric acid calculi, voided by a female infant about five months old.

Lumbar Abscess—Periostitis of Lumbar Vertebræ.—Dr. Sayre presented the recent pelvis of a man who had died with the above diseases. He was about 32 years of age; had previously enjoyed good and robust health, and no strumous diathesis could be traced in himself or family. Four months ago he entered Bellevue Hospital. At that time an abscess was found on the left side of the lumbar vertebræ, between these and the ilium. There was also quite a prominent tumor on the right side. Two or three weeks afterwards an exploring needle was introduced, but no pus detected; two days afterward, the pus began to discharge from the opening very freely. On probing it again, the posterior part of the ilium, along its crest, was found to be destitute of its periosteum, and dead. He sank gradually and died, exhauted with diarrhœa.

On post mortem examination, the periosteum along the lumbar vertebræ was found covered with osteophytes; the spines of the vertebræ were also covered with these growths. The ilium was found carious and softened. On the front of the sacrum there was a prominent osteophytic growth, penetrating into the rectum. The abscess had perforated the fascia of the iliacus and psoas-magnus muscles, went down deeply on the right side below Poupart's ligament, nearly to the insertion of these muscles.

There was no evidence of the presence of tubercles in this patient; all the organs were healthy and no trace of tubercular deposit found anywhere. The specimen then, in his opinion, was a strong proof of the error of the views held by Dr. Gross, that all diseases of the hip-joint, lumbar abscess, etc., are the result of tubercular deposit.

Hip-joint disease; perforation of the acetabulum, removal of the head of the femur, and of portions of the tuberosity and ramus of the ischium, and pubis.—Dr. Sayre related the following case: The head of the femur presented here, was removed from a boy about 10 years of age, who had been suffering from hip-joint disease for more than four years. During all this time the child had not been under the treatment of any regular practitioner. When Dr. S. saw the patient, a week ago Saturday last, he was apparently in a very critical condition. The pulse at that time was 165; the child very much emaciated; the sacrum nearly protruded through the skin. There were four or five abscesses, that had opened at different parts around the hip-joint. After a consultation it was resolved to remove the head of the femur, as the only chance left. The patient was accordingly brought under the influence of chloroform and the operation performed. When the head of the bone was removed, a large quantity of exceedingly offensive pus gushed out from the acetabulum, and it was ascertained, that the head of the femur had been driven into and perforated the acetabulum, and thus formed a plug that had closed the abscess, preventing the pus from escaping. The finger was then passed through the opening, and the inner surface of the ilium, part of the tuberosity of the ischium and ramus of the pubis were found to be denuded of periosteum and evidently in a state of caries. The bone-forceps were then introduced over the finger and a portion of the tuberosity of the ischium, ramus of the pubis and ischium removed, leaving almost nothing behind, but the wing of the ilium. During the whole operation, neither the periosteum nor the peritoneum were in any way interfered with. This operation was performed on Thursday, the 20th of October; the pulse, which previous to the operation was 150 to 165 has been gradually assuming the normal standard. On Sunday, the 23d, the pulse was down to 112, and Dr. S. began to cherish strong hopes of his recovery, but to day (26th) he appears to be anything but in a prosperous condition. Ever since the operation the patient has been kept upon the most nourishing diet.

Dr. Bauer stated, that through the kindness of Dr. Sayre, he had had the opportunity to be present at the operation. The child since the operation had been more comfortable, than during the last eight months of its sickness. The number of operations of this description (resection of the head of the femur) had now reached the very fine figure of ninety-two, almost 60 per cent. of which had recovered. Among the fatal cases, were eleven complicated with gun-shot wounds and other injuries of a severe nature. The operation could be performed very easily on children, as there was very little blood lost, in this case hardly half an ounce.

A very interesting question presented itself in connection with this case, namely: how it comes to pass that such large deposits of purulent matter can be manufactured in the body, and remain there for months and months, without producing pyæmia. This subject deserved the closest study of the pathologist. He was induced to make this remark, because, in the latest American work on surgery, all the old ideas, with regard to the cause of pyæmia, are still reproduced and retained in their old connection. There are no facts to demonstrate that pus can enter the veins or the lymphatic glands, or can, if injected into a vein, as has been repeatedly done, produce pyæmia. All these experiments, however, have been repudiated, the old theories re-

vived, and this branch of pathology been pushed twenty-five years back, in the work referred to. He would not enter into the subject minutely at present, but hoped the Society would take the matter into mature discussion on some other occasion, as it was very desirable that this subject should be thoroughly sifted.

Dr. Moses presented a specimen of *caries of the last three lumbar vertebræ*. The child, four years ago, was taken with symptoms of spinal disease, although the diagnosis was at that time somewhat doubtful. After several weeks the patient came under the charge of Dr. Vanderbilt, who diagnosed disease of the spine. Some time in January, 1855, an abscess presented itself in the perinæum; it was opened, and about a pint of pus discharged. From that time the child went on improving in general health, so that it was able to be about the house. It remained well for nearly a year. In the summer of 1856 the child was taken with scarlet fever, from which it recovered. During convalescence the spinal disease seemed to be revived. Sometime during last winter an abscess presented itself in the right groin, which was opened, and discharged freely; another abscess was found in the lower portion of the lumbar region, which was also opened. Shortly afterward tumefaction of the abdomen was noticed This swelling of the abdomen was unaccompanied by any acute symptoms whatever, and was referred to disease of the liver. The child was tapped three times, and about a pint of fluid drawn off on each occasion. It died a week or ten days ago.

On opening the abdomen, the whole surface of the small intestines was found to be covered with plastic lymph of a yellow color, agglutinating them together. This peritoneal inflammation reached upward toward the surface of the liver, and downward into the pelvic cavity. The liver, on being removed, was found to be very solid and firm in texture, and presented very much the appearance of wax liver; it had encroached upon the cavity of the chest, so that both lungs were considerably pushed up; respiration, however, had not been much affected during life. The last three lumbar vertebræ were found to be in a state of caries; the two upper ones were almost entirely destroyed, and the last lumbar vertebra is very much diminished in size. No paralysis showed itself during the whole course of the disease.

Dr. Sands, on behalf of the committee to whom the specimen of a morbid growth in the larynx had been referred at the last meeting, for microscopical examination, reported that he had examined the specimen, (supposed to be tubercular,) together with Dr. Dalton, and that it was epithelial. No tubercle was found either in the exterior or interior of the growth. The epithelial cells were of the flat variety.

EDITORIAL DEPARTMENT.

Periscope.

Infibulation.[1] By Dr. Jules Rouyer.—Infibulation: this word, or rather the thing that it expresses, has always attracted attention, and awakened curiosity; the details connected with the practice are not generally known even to physicians, although one of the historians of our science (Celsus) has mentioned it in his works. We must, at the outset, indicate an important point—that the operation was performed on both sexes. We will first study it as performed on males.

Celsus informs us in what the operation consisted, and how it was practiced on young people. "There are persons who *infibulate* the young in order to preserve their voice or their health. The operation is performed thus: the skin which covers the gland is drawn back, and the point on each side which is to be pierced is marked with ink; then the parts are allowed to return on themselves. If the mark come back on the gland, too much skin has been drawn up, and it must then be marked lower; when the gland remains behind the marks, the proper spot for the fibula is found. Then the integument is pierced at the marked points by a needle armed with a thread, when the two ends are tied together, and which is left in situ until little cicatrix are formed around the holes. When this takes place the threads are removed, and replaced by the fibula, which is esteemed to be better in proportion to its lightness."—(Celsus, De Med. lib. vii. xxv. 3.)

The fibula was applied to protect the health of the youth, *valetudinis causa*, says Celsus. It was specially to prevent premature sexual indulgence, *ad transitum virilitates custodiuntur argento*, "the transition to the age of virility is guarded by silver."—(Pliny, xxxiii. 12.)

At a more advanced age the fibula was removed, and the captive organ recovered its liberty.

> Occursit aliquis inter ista draucus, et
> Jam pædagogo liberatus, et cusus
> Refibulavit turgidum faber penem.
> (Martial, lib. ix. Ep. 27.)

In the passage of Celsus quoted above, he remarks that young people were infibulated for

[1] A chapter taken from a work entitled "Medical Studies on Ancient Rome," just published in Paris

the sake of their voice; *vocis causa*. We find this assertion confirmed by both Juvenal and Martial. Both players and singers were infibulated by direction of the prætor who was charged with the superintendence of the theatres.

Si gaudet cantu, nullius fibula durat
Vecem vendentis prætori.
(Juv. Sat. vi. 379.)

The actors, too, were very much sought after by the Roman ladies, who supposed that a prolonged abstinence considerably increased the ardor of the infibulated, and they, speculating on this supposition, made them pay very dear for their favors:

Solvitur nis magno comœdi fibula.
(Juv. Sat. vi. 73.)

Martial says that the fibula of the singers served no other purpose than to make them more esteemed for the avocation we have mentioned.

Dic mihi simplicitu comœdis et citharœdis
Fibula quid prœstat? Carius ut fatuant.
(Martial, lib. xiv. Ep. 215.)

In another epigram, Martial makes use of the word fibula, to indicate an actor's characteristic organ.

The Romans also infibulated their eunuchs.

Ergo ne videaris invidere
Servo, cœlia, fibulam remitte.
(Martial, lib. xi. Ep. 76.)

We should also add to the history of the *fibula*, that of the *subligar*, or *subligaculum*. It was a sort of skin apron, which covered the genital organs, and extended from the umbilicus to the knees. All the actors on the stage were obliged to wear the subligar, as Cicero tells us—"*Scenicorum* quidem mos tantam habet, veteri disciplinâ, verecundiam ut in scenam sine subligaculo nemo prodeat."

This garment was also worn in the bath to conceal the genital organs. Martial speaks of it in several epigrams. We will only quote one; we do not translate it, for obvious reasons:

Narrat te rumor, chione, nunquam esse fututam
Atque nihil cunno purius esse tuo
Tecta tamen nowhac, qua debes, parte lavari.
Si pudor est transfer subligar in faciam.
(Martial, lib. iii. Ep. 87.)

The word *fibula* has been sometimes employed as synonymous with subligar. Martial uses it in this manner, (lib. vii. Epigram 82.) When infibulation is spoken of, it is generally admitted that the practice had reference to women. Strabo says, in speaking of the Ethiopian: "They also arm their women, most of whom have their labia pierced to receive a copper ring."

The fibula that M. Rouyer speaks of, reminds us of the girdles of chastity of the middle ages, of which a beautiful specimen exists at the Hotel de Cheny. Some discussion has taken place as to whether it was intended to prevent sexual intercourse or masturbation. The first is probably the true solution, for the ivory disc which covers the entrance of the vagina is pierced by a slit with serrated edges, which could not admit a child's penis, but which could readily permit the introduction of an instrument for the purpose of masturbation.

Passage of Medicines into the Milk of the Nursing, and into the Fœtus.—Experience has long taught that many medicines given to pregnant and nursing women, act on the fœtus and the child. Experiments, directly to prove the passage of medicines into the milk and the fœtus, have, however, been rarely instituted, so that Drs. SCHAUENSTEIN and SPAETH (*Froriep's Notizen, Bd.* 2, *No.* 17, 1859) deserve great praise for their pains-taking investigations in this respect. So far, their conclusions are: 1. Rhubarb passes into the milk. 2. Sulphate of potassa has not been proved to do so. 3. Iodine passes into the milk, and also into the liquor amnii and the fœtus. 4. Mercury probably passes into both the milk and the fœtus, but the proof of its doing so is as yet not sufficient. Further investigations are promised.

The Action of Sulphate of Quinia in Albuminuria.—It is not upon the blood that the impression is to be made in albuminuria, according to DR. D. ANIZON, of Nantes, (*Gazette hebdom.* vi., 7, 1859,) but it is necessary to modify the inner surface of the tubuli uriniferi, they being the seat of the disease, which essentially consists in the separation of their epithelial tissue. Quinine, since it passes when taken internally almost entirely into the urine, is well calculated to limit this separation of epithelium, and thereby that of albumen from the blood. Three successfully treated cases of albuminuria occurring in children after scarlatina, in which the author gave quin. sulph. gr. vi. to viij. in two or four doses, with half-hourly intervals, followed for several days by four doses daily of gr. iv., illustrate, and the author thinks, confirm the correctness of his views.

THE MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SATURDAY, NOVEMBER 5, 1859.

CHEMICAL THERAPEUTICS.

Charlatanry is a many-headed monster. The itinerant nostrum vender, the advertising quack, and the pretender to marvellous performances in medicine and surgery, are but individuals of a class consisting of many species. Chemistry constitutes a new and somewhat uncultivated field for the exercise of that peculiar species of talent which makes merchandise of the tears and sufferings of mankind; and the "chemical doctrines" which are from time to time so loosely advanced in medicine by men of a speculative turn of mind, offer a strong inducement to smatterers in both chemical and medical knowledge, to see if they cannot discover in some chemical compound that will supply to the organism the elements which, in consequence of disease, are thrown off in the form of effete matter, the universal catholicon that will place man beyond the reach of the assaults of disease and thus practically subvert a well known law of our nature, comprised in the words Decay and Death.

The stomach, the bowels, and the liver, have received much attention at the hands of these parasitic intruders into the domains of scientific medicine, but they have had their day, and a new incursion has been made into our camp, of searchers into the hidden laws of our being, and the very beginnings of those aberrations which eventually compromise life. The test tube and the crucible are to do for man what the coarser and more vulgar forms of charlatanry that were in vogue in the days of our fathers, failed to accomplish. Alchymy has left the laboratory, and entered the field of practical medicine.

Among those who have of late sought to benefit mankind in general, and himself in particular, by the chemical application of remedies to the cure of disease, is one Dr. John F. Churchill, who claims to have discovered in the *hypophosphites* of lime, soda and potassa, a cure for the terrible maladies included under the vague and indefinable term "Consumption." He sought prestige by announcing his "discovery" through the Academy of Medicine of Paris—a respectable body which, we regret to say, lends its name and influence to many forms of quackery. These hypophosphites have been obtruded on the attention of the profession till we have become tired of the name. We never admitted them to full confidence, as their pretensions did not commend them to our judgment; and now we find that the almost united voice of the profession has pronounced against them. It is high time that they were deprived of any fictitious value that may have been placed upon them by the artful management of Dr. Churchill or his agents.

We have no disposition in the above remarks to deny a therapeutical position to chemical agents in the treatment of disease, when properly applied in suitable cases; but only to enter our protest against the efforts made to press so intricate a science into the service of charlatanry. Nor would we even be understood as wholly denying that the hypophosphites may have claims to a certain degree of value, in the treatment of tuberculosis, simply because we have not personally investigated those claims. Others, however, on whose intelligence and honesty full reliance can be placed, have not found them to possess the virtues claimed for them. Of Dr. Churchill's abilities as a chemist and practitioner, and his sincerity as a searcher after truth, we know nothing, though we do not remember to have heard of him before his name appeared in this connection, and the public has a right to judge him, to some extent at least, by his pretensions and the acts of his "special agent" in this country, who is certainly making use of the most approved appliances of modern charlatanry, to puff the hypophosphites into notoriety, as possessing specific powers in the treatment of "consumption."

In another column, a correspondent calls attention to one mode employed by this "special agent" to keep the interest of the public alive to the claims of this "newly discovered" method of treating diseases of tuberculous origin.

PENNSYLVANIA HOSPITAL FOR THE INSANE.

This institution, located in West Philadelphia, is under the charge of Dr. Thos. S. Kirkbride. For the past three years, additional buildings for the accommodation of patients have been in the course of erection. These have been so far completed as to be ready for occupancy, and they were formally opened on the 27th ult., by addresses from Mr. M. L. Dawson, President of the Board of Managers, Mr. Wm. Welsh, and Mr. Morton McMichael.

The new buildings, which will accommodate about two hundred and fifty patients, are situated at some distance from the old buildings, and are to be devoted to the use of male patients exclusively; Dr. Kirkbride, the very efficient physician and superintendent being determined to carry out the principle of segregation of the sexes, in the future management of the institution. The additional buildings have cost about three hundred thousand dollars, the whole amount having been contributed by friends of the institution. The length of the new buildings is twelve hundred and twenty-five feet.

The whole establishment, including the old and the new buildings, will now accommodate about five hundred patients.

Correspondence.

MENTAL IMPRESSIONS ON THE FŒTUS IN UTERO

Editors of the Medical and Surgical Reporter:

GENTLEMEN:—In one or two numbers of your very excellent journal, communications have appeared, embracing the history of cases which would seem to establish the correctness of the popular belief, that the fœtus in utero may become marked or disfigured by certain impressions made upon the mind of the mother during gestation. This belief is a very old and wide spread one. It is very easy to conceive how it originated, at a period when the true physiology and pathology of the fœtus were entirely unknown, and the most absurd opinions were entertained, even by the best informed physicians, in respect to almost every thing relating to conception and gestation, and to the relations which exist between the fœtal and maternal organisms. The continued prevalence of the belief, among those out the profession, is readily understood when we reflect that the love of the marvelous is a characteristic feature of the popular mind. We confess, however, that we feel not a little surprised in finding, even at the present day, that there are physicians who are inclined to give countenance to the doctrine that ascribes to the imagination of the mother the power of so modifying the development of the child in utero that it shall become impressed with certain abnormal features, bearing a resemblance, more or less perfect, to the objects by which the maternal imagination has, in each case, been powerfully excited.

It is true, that less is now ascribed to the mere powers of the mother's imagination, as a cause of deformity in the fœtus, than to powerful mental shocks experienced by her during pregnancy; while the doctrine, so current in former times, that the unsatisfied longings experienced during gestation are equally effective in their power of marking the fruit of the womb, with vivid impressions made upon the senses of the mother, of a painful or disagreeable kind, would seem to be now almost entirely repudiated.

To the general proposition, that any violent shock inflicted upon the nervous system of the female during pregnancy, may act deleteriously upon the fœtus in utero, we have no particular objection. We are willing to receive it as one extremely plausible, and to a certain extent, perhaps, strictly true. And yet, if we but reflect upon the very small proportion which the cases where children are born with more or less deformity, or with marks of any kind upon the surface of their bodies, bear, not simply to the entire number of births, but to the number of births where the mother during some period of her pregnancy has been subjected to the most violent shocks, and of a character adapted to make the deepest and most lasting mental impression, we may well feel inclined to doubt whether there does actually exist that connexion between mental shocks in the mother and deformity in the child, which is supposed to be the case by some.

The doubt will be strengthened when we compare the large number of cases of congenital deformity or marking that occur in children born of mothers by whom it was very certain that no mental shock of any kind, whether of a pleasurable or painful character, had been experienced. And still further is the doubt increased, when we take into account the very slight and altogether indirect nervous connection which exists between the mother and the fœtus in utero. When we consider that the development of the latter is not due to the plastic forces of the maternal organism, but that, so soon as the impregnated ovum is deposited within the cavity of the uterus its development is due exclusively to its own inherent forces,—it being indebted to the mother for scarcely anything beyond a suitable place and the requisite material for its proper development.

In estimating the true value and exact bearing of the facts that have been adduced in evidence of the agency of mental excitement experienced by the mother during pregnancy, in the production of abnormal conditions in the fœtus, we must bear in mind that numerous facts, apparently as well authenticated, in all respects, and to all appearance equally conclusive, have been adduced to prove that, when any of the morbid and bizarre longings often experienced by the pregnant female are opposed, or, from any cause, unsatisfied, the image of the thing longed for is liable to become impressed upon the child in her womb.

It is very generally admitted, that all cases of monstrosity or deformity—all deviations, in fact, from the normal structure, form, and condition—which occur in the fœtus, are referable to either an excess of development, a defect of development, or to perverted or misplaced development; to the fusion of one or more ova, at an early period of their development; to spontaneous amputation, in part or in whole, of the fœtal limbs; or, to the effects of certain intra-uterine diseases. That these various vices of development—this redundancy or deficiency or loss of certain parts or of entire limbs—such particular morbid conditions of the fœtus, in any given case, may be referable, occasionally, to violent impressions or shocks inflicted upon the mind of the mother during gestation, we admit as probable, though it has not, certainly, been established as a positive truth.

The foregoing admission is not, however, to be considered as involving a recognition of the absurd proposition, that the imagination of the pregnant female, when powerfully excited by any frightful, strange or revolting object, is able, by a kind of neurographic power, if we may be allowed to coin an expressive term, to impress upon the fœtus in utero, the exact image of such object, and with all adjuncts necessary to commemorate the circumstances under which the mental excitement occurred, as in the second of the cases related by Dr. Woodward, of Illinois, in the REPORTER of October 1, 1859, where "the every appearance of a *large* rattlesnake," *scales* and all, with the body of which the mother had been frightened during her pregnancy, was stamped upon the infant, and across its abdomen too, it being the abdomen of the mother which was struck by the body of the reptile when this was playfully thrown at her by her husband.

The influence which is thus supposed to be exercised by the imagination of the mother in marking and modifying the body of the fœtus in utero, however rare its occurrence may be claimed to be, is, we must always recollect, a phenomenon altogether dissimilar to anything that has been observed to take place in any of the acts, whether normal or abnormal, of the plastic power of any part of the animal organism subsequent to birth. No modification of the plastic power has been known, in a single instance, to be caused by a shock inflicted upon the mind of an individual, or by any freak of the imagination when intensely excited by some powerful mental impression. Now we know of no reason why this should be so; the character of the nutritive process, as it exists before and after birth, is precisely the same, or, if any difference do exist, it is only in respect to activity and direction. It is very certain that the process is more directly under the influence of the nervous system in the individual after birth, than it is in the fœtus, and consequently far more susceptible, we should presume, of being modified by powerful nervous impressions.

We may be asked, perhaps, what disposition we intend to make of the cases on record in which marks and deformities have been observed in children, bearing a decided relation, in their character, to objects by which, during pregnancy, the minds of the mothers have been violently affected. To such an inquiry we should reply, without hesitation, that we should refer the supposed relation which, in all such cases, the condition of the infant bears to certain objects by which the mind of the mother was strongly impressed while she bore it,—not to the influence of *her* imagination upon the fœtus, but to the disturbing influence exercised by the imagination of herself and friends upon their respective powers of observation, and upon the clearness and accuracy of their respective judgment. "*Qui vult decipi ergo decipiatur.*" C.

THE HYPOPHOSPHITES.

New York, Oct. 24, 1859.

MESSRS. EDITORS:—I have lately been favored with the receipt of a circular, signed by J. Winchester, of 43 John street, New York, the first part of which bears the title, "a few words to the profession," and contains severe strictures on that part of the report from Essex county, of the transactions of the Medical Society of the State of New Jersey, recently published, which refers to the hypophosphites of lime and soda.

Mr. Winchester, who is the *agent* of the article, is in possession of autograph letters from Dr. Churchill, and has "made arrangements for the importation of *Phosphorus* (*!*) directly from the English and French manufacturers upon a more extended scale than any other chemist in the United States," is severely "*down*" on the Reporter of Essex county for saying "that in several cases, where the administration of the hypophosphites was said to have been followed by excellent results, on close inquiry it was found that in all these cases cod-liver oil and other remedies had been employed, to which the results attributed to the hypophosphites were un-

doubtedly owing;" and he finds fault that the remedy was not used alone, and just *exactly* as Dr. Churchill, upon whom Mr. W. seems to look as a sort of hypophosphoric Pope, prescribes.

As the above circular has undoubtedly been largely circulated among the profession, and is calculated to lead to wrong conclusions regarding the efficacy of the article in question, allow me to quote the following concluding remarks of Dr. A. Dechambre, the learned editor in chief of the *Gazette Hebdomadaire*, which he appends to the account of a a dozen cases observed. examined, and analyzed by him, in conjunction with *Dr. Churchill himself*, in the latter gentleman's *own* dispensary. Most of these cases are reported in Dr. C's. own ward, and there can *hardly* be a doubt but that a "*fair*" and "*complete*" trial of the treatment was had under these circumstances.

Says Dr. Dechambre:

"Of the dozen observations, an account of which the reader has just finished, there are two in which I believe I am justified in *doubting*, from my first examination, the *existence of tubercular phthisis*. . . . In one of these two cases, the general condition of the patient was ameliorated, and the local affection had remained stationary at the end of four months of observation. In the other case all symptoms had disappeared at the end of four months. There remain ten cases which we can, with every appearance of certainty, ascribe to tubercular phthisis. Among this number *once* the local condition was amended at the end of 4½ months; once it had remained stationary at the end of 4 months; *eight times* it had been aggravated at the end of 4, 2, 3, 5, 4, 3½, 4½ months, and three times in half a month. In the general condition of the patient, amelioration had been evident *five* times; *one* time no appreciable change had taken place; *four times* it had been aggravated. . . . . .

"After these results," continues Dr. Dechambre,[1] (and the reader must bear in mind that they were obtained under the co-operation of Dr. C.,) "*it is impossible for me to attribute to the method of treatment employed by Dr. C. any influence over the progress of tubercle.*" . . . . .

Yet in view of such facts, which are published under Dr. Churchill's own observation, and of which he is aware, sentences like the following are spread before the public, manufactured in Paris, we strongly suspect, expressly for the foreign (American) market and J. Winchester's special benefit. What smacks stronger of the most unmitigated charlatanism than the following extract from one of Dr. Churchill's letters to the said Mr. J. Winchester:

"What I am anxious for is, that the hypophosphites should be brought, as speedily as possible, into universal use, as I know that they will prove not only as sure a remedy in consumption as quinine is in intermittent fever, but also as effectual a preservative as vaccination in small-pox."

[1] Gazette Hebdom., Oct. 1st, 1858, No. 40.

I would of course not have deemed it necessary to say a word regarding this matter had merely a criticism, however severe, of the Essex county report, been concerned. But as it has been made a vehicle for a *puff*, which leads to a false appreciation of Churchill's method, I thought it not out of place to give the resumé of the above cases in Dr. Churchill's dispensary, published under the signature of Dr. Dechambre.[2]

CH. F. J. LEHLBACH, M. D.
Reporter for Essex county, 1858-9.

News and Miscellany.

Dr. Joseph M. Houston, of Milton, Del., has taken a situation in the French Naval Supply Service, as Surgeon, and will start on his first cruise early in November.

New Orleans, Oct. 29.—The yellow fever continues at Galveston and Houston. Indianola is free of the disease. It is reported that twenty-five deaths from yellow fever occurred in Charity Hospital, N. O., last week.

Clerical Mortality.—Of the twenty-five hundred ministers belonging to the Old School Presbyterian body in May, 1858, thirty-one died within the year following, making the death rate twelve and half, or one-sixth lower than the most favored people known on the earth, as to health.

The Pennsylvania Hospital has relied upon individual contributions for its support, having had no aid from the State in the present century—the last grant by the Legislature having been in 1796, toward the completion of the west wing, for the insane, on Ninth street.

The Glasgow Eye Infirmary.—Dr. Mackenzie of this institution, in an address, makes the following statement: "31,490 patients have been admitted on our journals since 1824, by which I do not mean that their names merely have been taken down, but their cases minutely gone into and recorded, as well

[2] Since writing the above, I have been pleased to see that Dr Howard Townsend, of Albany, in article 17 of the Transactions of the Medical Society of the State of New York for 1859, entitled "Hypophosphites," takes substantially the same position as that assumed in the Essex county report, and could we canvass the opinions based upon the experience of the profession generally, we have no doubt that the same result would be obtained.

as the treatment prescribed, and the results of that treatment. Upward of 1,740 operations have been performed on the eye, some of them, no doubt, trivial; but the major part serious and important, as involving the preservation or restoration of sight. The number of students admitted as pupils amounts to 447, who have been the means of carrying the doctrines and practice here followed, not only into different parts of the United Kingdom, but to some of the remotest regions of the globe."

Sir David Brewster has accepted the Principal's chair of the Edinburgh University.

Deodorizing the Thames.—The *Med. Times and Gazette* says, that the experience of the past summer showed that the condition of the river might be controlled by free use of deodorizing agents applied to the contents of the sewers; and it also indicates the importance of resorting to them at an earlier period than was practiced in the present year.

Surgeon Gunnell has been detached from the Fulton, and ordered to the new steamer Pensacola.

The subject for discussion at the next Conversational Meeting of the Philadelphia County Medical Society, on Wednesday evening next, the 9th inst., will be "The Diagnosis of Ovarian Tumors."

Professor Dunbar, of Baltimore, is at the head of a movement in that city, designed to be the initiative of an inebriate asylum for Maryland.

Underground Temperature.—A paper read before the British Scientific Association, on "Underground Temperature," stated that, with a thermometer sunk to the depth of three feet, the greatest cold was experienced in February, while at six feet deep the greatest cold was in March; at twenty feet deep the greatest cold was in April, and at twenty-four feet deep the greatest cold was in July.

Spots on the Sun.—The spots on the sun are unusually numerous and large this year. At the present time there are eleven groups of spots visible, two of which have just made their appearance on the western edge. They are of interest just at this time, inasmuch as there is some reason to believe in a concurrence between the periods of their maximum and minimum abundance and that of the aurora or magnetic storms. A very large spot has been recently observed nearly in the centre, embracing a central black spot and a still larger penumbral region. It is said to be undergoing, daily, remarkable changes.

Importation of Foreign Bees.—The Agricultural Bureau of the United States Patent Office have received intelligence of the shipment from Havre, France, of a large swarm of Lombardy bees. They are of a larger size than the ordinary bee, and, having a longer bill, are able to suck flowers inaccessible to the American bee. The product of an old hive of these bees is sometimes 150 lbs. of honey in one season. These bees will not be distributed until 1861, by which time it is expected to rear from the swarm now *in transitu* stock enough for six hundred hives.

Dr. M. J. Asch's course on medical chemistry, in all its relations to medicine, pathology, and toxicology, will commence in a few days. The course will be well illustrated by experiments and the use of the microscope.

A fossil skeleton of a frog has been found in England, which, from its size, must have belonged to an animal weighing half a ton. . . In the last thirteen years in England, 7,312,287 legitimate children were born, and 520,704 illegitimate. . . . . The Japanese have fitted out an exploring expedition. . . . . Electricity has been recently used as a means of coercion, instead of the straight-waistcoat and douche, for the insane. . . . . A fœtus, in which the anterior abdominal parietes were deficient, was exhibited at the last meeting of the London Obstetrical Society. . . . . An autograph of Harvey was lately sold for twenty pounds. . . . Some cattle have been poisoned in England by eating leaves of the yew tree. . . . . A case of death from chloroform has occurred on the Dreadnaught Hospital ship London. . . . . Smallpox is unusually prevalent in London. . . . The *N. Y. Times* numbers fifty-three actual suicides within the last six weeks, and twenty more unsuccessful attempts. . . . The Board of Governors, of New York, have passed a resolution restricting the use of tobacco in the workhouse department to the boat's crew who carry the prisoners and visitors to and from the island. . . . "I presume you won't charge anything for just *re-membering* me," said a one-legged sailor to a wooden-leg manufacturer.

To Correspondents.

Dr. R. S., Tenn.—The relative value of different kinds of wire for suture, has not yet been determined by sufficient experience. Dr. Simms, whose experience is the greatest, prefers the pure silver wire. Mr. Simpson chooses the simple iron wire, and in the Pennsylvania Hospital the surgeons have been using lead wire. Success has attended the use of each kind. The iron wire has the advantage of strength and cheapness; the silver wire is smoother and more flexible.

The use of metallic sutures of different kinds in the Philadelphia Hospital, would rather incline us to rely most on the silver wire. The sizes used are from guage twenty-eight to thirty-two. Pure silver or iron wire and the proper needle for their use may be had from Gemrig or Kolbé, instrument makers of this city. They can be procured at a cost of about fifty cents, and can be sent by mail.

Dr. C. H. S., New York.—The lead water and laudanum lotion, spoken of in the reports of Pennsylvania Hospital, is prepared by adding an ounce each of Goulard's extract (strong) and laudanum to a pint of water. It may be used stronger or weaker than that.

Graduate.—Dispensary appointments are only made when vacancies occur. Candidates are not examined, but are required to possess the degree. The rules, we believe, do not make it necessary to reside in the neighborhood allotted for practice, but it is probable that a residence in the district which may be vacant would be a recommendation for obtaining the appointment. No salary is paid. Application should be made to the Managers of the institution.

Drs. M., of Tenn., and F. and W., of Pa.—We can still furnish the Reporter *from the commencement* of the weekly series at the subscription price.

COMMUNICATIONS RECEIVED.—*California.* Dr. A. H. Hœrshner, (with encl.)—*Illinois,* Dr. James Robarts, Dr. B. Woodward—*Indiana*—Dr. G. W. Robbins, (with encl.)—*Kentucky,* Dr. John D. Jackson—*Mississippi,* Dr. S. Buford, (with encl.,)—*New York,* Dr. M. Stephenson, (with encl.) Dr. T. C. Brinsmade, (with encl.,) L. Bauer, "Gotham,"—*North Carolina,* Dr. H. G. Lungren, (with encl.)—*Pennsylvania,* Dr. J. M. Stevenson, (with encl.,) Dr. E. L. Melsheimer, (with encl.,) Mr. John Hulme, Dr. S. P. Bartleson, (with encl.)

Office Payments.—Drs. H. S. Jacoby, W. C. Graham, A. J. Watson, S. Tyler Miller, J. E. Hawkins, F. S. Seitzinger, Spencer Roberts, W. S. Halsey, C. P. Keichline.

MARRIAGES.

BOLTON—HOFF—At West Bloomfield, N. J., Oct. 26, by Rev. J. A. Priest, Dr. Edward C. Bolton, of New York, to Fanny R., daughter of the late Rev. B. Hoff.

SHEPPARD—MEEDS—At Richmond, Va., October 18th, by the Right Rev. Bishop McGill, Dr. N. C. Sheppard, of Buckingham county, Va., to E. Laura, only daughter of Edwin Meeds, Esq.

JONES—DAVIS—October 26th, at the Sand Hills, near Augusta, Ga., by Rev. S. S. Davis, D. D., assisted by Rev. C. C. Jones, D. D., Professor Joseph Jones M. D., of the Medical College, Augusta, to Caroline P., daughter of Rev. S. S. Davis.

DEATHS.

CHURCHILL—October 27th, in New York, of pneumonia, Charles W. Churchill, M. D.

HARDAWAY—Near Columbus, Ga., October 16th, George Stanfield Hardaway, A. M., M. D., aged 25 years, 8 months and 5 days.

PECK—In Brooklyn, suddenly, on the 26th of October, Julia, wife of Dr. Aaron E. Peck, aged 24 years.

ROBERTS—On the 26th ult, James Blair, son of Dr. Charles B. and Sarah Roberts, aged 6 years.

FRICK—At Germantown, on Monday afternoon, 31st ult., Dr. Jacob Frick, in the 77th year of his age.

MURPHY—In this city, on the 30th ult., Mrs. Mary G., wife of Dr. S. Murphy.

SHERWIN—Dr. Ira Sherwin, of Harborcreek, Erie county, Pa., died recently, aged 63 years, 2 months and 3 days. He had been in his usual health during the day, went to bed at the usual hour, and at about 4 o'clock his wife awakened and found him dead.